

Long term therapy could still be considered for prevention of osteoporosis, used as part of the management of women with particular cardiovascular risk factors, and used for better quality of life. We do not yet know the effects, if any, for the prevention of dementia, although preliminary evidence is encouraging. Women who are already taking long term hormone replacement therapy should be reviewed and counselled. If they need further treatment, consideration should be given to switching them to another form of hormone replacement therapy if they are taking a regimen of conjugated equine oestrogen and medroxyprogesterone acetate.

For women starting hormone replacement therapy, we continue to recommend that the starting dose of oestrogen is kept low in women over the age of 60. For example, this would be 1 mg for oral, or 50 µg for transdermal, oestradiol 17β—the 0.3 mg dose of conjugated equine oestrogens is not currently available in the United Kingdom. The risks and benefits of alter-

natives to hormone replacement therapy (such as tibolone and raloxifene) are still to be determined, but they are unlikely to be the same as the regimen used in the women's health initiative trial.

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## An ethically defensible market in organs

*A single buyer like the NHS is an answer*

The American Medical Association has just voted to encourage studies that would determine whether financial incentives would increase the pool of donor organs from cadavers.<sup>1</sup> The association is only eight years behind a proposal that we made, outlining probably the only circumstances in which a market in donor organs could be achieved ethically and in a way that minimised the dangers of such a scheme. This is how an ethical market in live organs would work.

To meet legitimate ethical and regulatory concerns any such scheme must have built into it safeguards against wrongful exploitation and show concern for vulnerable people, as well as taking into account considerations of justice and equity. If all this can be done then a market in human body products will be shown to be, at the very least, not *prima facie* unethical.<sup>2</sup>

One way of attending to this need for prudent regulation would be to establish a monopsony, a situation where only one buyer exists for the products of several sellers.<sup>3</sup> The one legitimate purchaser in the marketplace would be required to take on responsibility for ensuring equitable distribution of all organs and tissues purchased. This would prevent the rich using their purchasing power to exploit the market at the expense of the poor. The monopsonist would also have other obligations, such as ensuring correct tissue typing to maximise histocompatibility and so minimise graft rejection, and screening for diseased or otherwise

hazardous organs and tissues (for example, blood infected with HIV).

In the United Kingdom, the NHS would be ideally suited for this role. The NHS or a comparable monopsonistic purchaser would purchase live organs and tissues just as it does other goods such as dialysis machines or drugs. It would then make them available as needed on the basis of urgency or some other fair principle of distribution at no cost to the recipient.

In effect, the monopsonist is responsible for the running of the scheme. Should it also be permitted to set the prices of various organs and tissues that it is interested in purchasing? Leaving the pricing of organs to the judgment of the purchaser in a particular marketplace introduces the possibility of a conflict of interests. If the monopsonist was not only to act as purchaser, but also held responsibility for setting the price of what it purchases, it is not unlikely that it would attempt to set prices as low as possible so as to conserve its resources. This would, however, be counterbalanced by the need to provide sufficient incentives to attract would be organ vendors.

It might be thought that in a monopsonistic market there is no possibility for a pricing mechanism as in the free market. But the monopsonist is under pressure to purchase, this pressure resulting from the need for organs: if the purchaser is responsible for supplying patients with organs, and if demand from the public for

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such provision exists, the purchaser will have an obligation to provide organs and a powerful motive for discharging the obligation. This affords the would be vendor a degree of bargaining power over the price he or she can demand for his or her organ. There is an analogy here with the NHS purchasing drugs and other equipment in the current system: in the United Kingdom, even before the growth of private health care, the position of the NHS as the lone major purchaser of pharmaceuticals did not afford it the power to dictate the prices of the drugs it purchased.

It seems only right that people who contribute to the scheme and run the risks entailed in organ supply, however small these risks may be, should also be in a position to benefit from the scheme if they one day require an organ—justice demands no less. People who sell their organs and tissues into the marketplace should perhaps be afforded greater priority in the allocation of organs if they become patients in need of organs than people who do not, and the responsibility for ensuring priority allocation should lie with the system.

Since there is no direct purchasing rich people cannot prey upon poor people in our scheme; all stand an equal chance of benefiting. One way of preventing rich nations preying on poor ones would be to confine the marketplace, perhaps to a particular nation state, but just as reasonably to a regional bloc of states. We could thus imagine various marketplaces facilitating commerce in live organs and tissues while restricting such commerce to a nation state or grouping of states such as the European Union.

Confining the marketplace also overcomes the problem of organ vendors or their families not being eligible as organ recipients because they do not reside in the catchment area of a health service managed by the relevant monopsonist. In our scheme those who sell into the market have an equal chance of benefiting

from the increase in available organs that is the sole justification for the market. Allowing payment to living persons for organs could lead society to view poor people as having capital and consequently being ineligible for welfare payments.<sup>4</sup> The legislation that introduced a monopsonistic market would have to rule this out as effectively coercing poor people into donation. Nothing we have said rules out altruistic donation as a mode of organ procurement alongside a commercial scheme—we would not wish to discourage donation.

The situation changes only when the individual avails him- or herself of the option to sell his or her organs. Depending on the price he or she has been paid for the organ, he or she might then be liable to a loss of welfare benefits and also to tax. While we note this as a possibility, our suggestion at both a practical and an ethical level would be to exempt the profits from organ and tissue sale from tax and also from benefit reduction—an added incentive to sell and a recognition of the residual altruism involved. It should be recognised that when a person sells an organ he or she acts both selfishly, in advantaging him- or herself, and altruistically, in contributing to a public good.

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## Magnetic resonance imaging of the knee

*Is accurate and helps in making therapeutic decisions*

**M**agnetic resonance imaging has had an enormous impact on musculoskeletal imaging and in this area the knee is the most frequently imaged joint. The steadily increasing availability of magnetic resonance imaging is moving the investigation from the realms of the last resort of the hospital specialist to part of the diagnostic evaluation by the general practitioner.

Magnetic resonance imaging of the knee is most commonly indicated in patients with suspected injuries of the menisci and cruciate ligaments. Plain radiographs have little value unless there has been an injury due to direct impact. In teaching centres where dedicated musculoskeletal radiologists report on images, diagnostic accuracy of 90% can be achieved for damage to the medial meniscus and anterior cruciate ligaments, slightly less for the lateral meniscus and slightly more for the posterior cruciate ligament.<sup>1-6</sup>

The contribution that this level of accuracy can make to therapeutic decisions has been shown in several stud-

ies. MacKenzie et al studied orthopaedic diagnoses before and after magnetic resonance imaging in 332 patients.<sup>7</sup> Clinicians were asked to indicate their clinical diagnosis, level of confidence, and the proposal for management before imaging. In meniscal tears, 57 of 113 pre-imaging diagnoses were no longer considered after imaging, resulting in a change in management in 62% of patients. For confirmed diagnoses, confidence in the diagnosis improved significantly. The proportion of patients for whom arthroscopy was being considered changed considerably, with only 38% proceeding to arthroscopy after imaging.

Carmichael and Warwick have reported similar results in smaller studies.<sup>8,9</sup> Weinstabl et al randomised patients with positive clinical tests for meniscal tears into two groups.<sup>10</sup> In one group all patients underwent preliminary magnetic resonance imaging, which determined the need for arthroscopy. In this group only 2% of the patients who subsequently underwent arthroscopy had findings of importance at surgery. Patients in